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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
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| 10/723,568  | 11/25/2003  | Marcello Lioy        | 030120                          | 9933                        |
| 23696 7590 06/14/2007<br>QUALCOMM INCORPORATED<br>5775 MOREHOUSE DR.<br>SAN DIEGO, CA 92121 |             |                      | EXAMINER<br>MATTIS, JASON E     |                             |
|   |             |                      | ART UNIT<br>2616                | PAPER NUMBER                |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

10/723,568

Applicant(s)

LIOY ET AL.

Examiner

Jason E. Mattis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-29 is/are allowed.
- 6) ☐ Claim(s) 1-22, 30 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1 paper.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 30 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Gloe (U.S. Publication US 2004/0083306 A1).

**With respect to claims 30 and 31**, Gloe discloses a network entity in a wireless communication system operating a method (**See page 6 paragraph 48 of Gloe for reference to a host node that is a portable wireless web accessing device operating a method to access the Internet**). Gloe also discloses a controller determining an operating mode of a wireless terminal when a first message with prefix information including a prefix used to derive and IP address for the terminal and a lifetime for the prefix was sent (**See page 7 paragraphs 55-57 and Figure 7 of Gloe for reference to a host node receiving a Router Advertisement including a prefix used to generating an IP address and a lifetime for the prefix**). Gloe further discloses a data processor sending a second message with updated prefix information

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when the terminal is in an active mode (**See page 7 paragraphs 55-57 and Figure 7 of Gloe for reference to a host node receiving an updated Router Advertisement when a Router Solicitation has been received meaning the node is in an active mode**).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gloe (U.S. Publication US 2004/0083306 A1) in view of Takeda et al. (U.S. Publication US 2004/0105420).

**With respect to claims 1, 13, 18, 20, and 22, Gloe discloses a wireless terminal in a wireless communication system operating a method (See page 6 paragraph 48 of Gloe for reference to a host node that is a portable wireless web accessing device operating a method to access the Internet). Gloe also discloses a receive data processor receiving a first message with prefix information including a prefix used to derive and IP address for the terminal and a lifetime for the prefix (See page 7 paragraphs 55-57 and Figure 7 of Gloe for reference to a host node receiving a**

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**Router Advertisement including a prefix used to generating an IP address and a lifetime for the prefix).** Gloe further discloses a transmit data processor sending a second message to solicit updated prefix information (**See page 7 paragraphs 55-57 and Figure 7 of Gloe for reference to the host node sending a Router Solicitation, which is a request for an updated Router Advertisement to be sent to the host).**

Gloe does not specifically disclose that the updated prefix information is solicited after a threshold time period that is shorter than the lifetime if a designated condition is met.

**With respect to claim 21,** Gloe discloses a method of receiving IPv6 Router Advertisements in a wireless communication system (**See page 6 paragraph 48 of Gloe for reference to a host node that is a portable wireless web accessing device operating a method to receive IPv6 Router Advertisements).** Gloe also discloses receiving a Router Advertisement with prefix information including a prefix used to derive an IPv6 address and a lifetime for the prefix (**See page 7 paragraphs 55-57 and Figure 7 of Gloe for reference to a host node receiving a Router Advertisement including a prefix used to generating an IP address and a lifetime for the prefix).** Gloe further discloses sending a Router Solicitation for updated prefix information (**See page 7 paragraphs 55-57 and Figure 7 of Gloe for reference to the host node sending a Router Solicitation, which is a request for an updated Router Advertisement to be sent to the host).** Gloe does not specifically disclose that the updated prefix information is solicited after a threshold time period that is shorter than the lifetime if a designated condition is met.

**With respect to claims 3, 4, 10, 11, and 15,** Gloe does not disclose the condition being met if the terminal is active, has an air-link connection established, has an always-on data session, or if there is data activity during the threshold time period.

**With respect to claims 5-8,** Gloe does not disclose deriving a threshold period that is a percentage of the lifetime and the lifetime period minus a fixed amount of time and using a timer that expires at the end of the threshold time period.

**With respect to claims 1, 3-8, 10, 11, 13, 15, 18, and 20-22,** Takeda et al., in the field of communication discloses soliciting updated address information after a threshold time period that is shorter than an address lifetime if a designated condition is met **(See page 11 paragraphs 171-175 of Takeda et al. for reference to sending a binding refresh request message to update and address binding if the remaining lifetime for the binding is shorter than a threshold and a new SIP request message has been sent by a terminal, meaning a designated condition has been met)**. Takeda et al. also discloses the condition being met if the terminal is active, has an air-link connection established, has an always-on data session, or if there is data activity during the threshold time period **(See page 11 paragraphs 171-175 for reference to the condition being met if a new SIP request messages has been sent meaning the terminal is active, with a current air-link connection, or in an always-on data session with current data activity)**. Takeda et al. further discloses deriving a threshold period that is a percentage of the lifetime and the lifetime period minus a fixed amount of time and using a timer that expires at the end of the threshold time period **(See page 11 paragraphs 171-175 for reference to using a timer to**

**countdown a threshold time that is a lifetime period minus a fixed amount and is also inherently a percentage of the lifetime period).** Soliciting updated address information after a threshold time period that is shorter than an address lifetime if a designated condition is met has the advantage of making sure current address lifetimes do not expire while a wireless terminal is still actively using the current address.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Takeda et al. to combine soliciting updated address information after a threshold time period that is shorter than an address lifetime if a designated condition is met, as suggested by Takeda et al., with the system and method of Gloe, with the motivation being to make sure current address lifetimes do not expire while a wireless terminal is still actively using the current address.

**With respect to claims 2, 14, and 19,** Gloe discloses that the first message is a Router Advertisement in IPv6 and the second message is a Router Solicitation in IPv6 **(See page 7 paragraphs 55-57 and Figure 7 of Gloe for reference to the messages being a Router Advertisement in IPv6 and a Router Solicitation in IPv6).**

**With respect to claims 9 and 16,** Gloe discloses sending a third message with the updated prefix information **(See page 7 paragraphs 55-57 and Figure 7 of Gloe for reference to sending a Router Advertisement with updated prefix information in response to each received Router Solicitation).**

**With respect to claims 12 and 17,** although the combination of Gloe and Takeda et al. does not specifically disclose the system being a CDMA system, using CDMA for wireless communication is old and well known in the art of communication. It

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would have been obvious for one of ordinary skill in the art at the time of the invention to combine using a CDMA system with Gloe and Takeda et al., with the motivation being to efficiently divide the wireless spectrum into channels for data transmission.

### ***Allowable Subject Matter***

5. Claims 23-29 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter: Claims 23 and 28 are allowable since the prior art of record fails to disclose or render obvious the claim limitations of using both a first and second threshold time period with separate corresponding first and second conditions are met to send a second message soliciting updated prefix information.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Babbitt et al. (U.S. Pat. 6618757 B1) discloses automatically renewing a hold time for an IP address of an active unit. Sitaraman et al. (U.S. Pat. 6427170 B1) discloses removing address allocations based on an address timer and activity records.




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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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